UK Study of magnetic resonance imaging (MRI) for breast screening

| Submission date | Recruitment status No longer recruiting | Prospectively registered | | |
|---------------------------------|---|--|--|--|
| 18/06/2010 | | ☐ Protocol | | |
| Registration date 18/06/2010 | Overall study status Completed | Statistical analysis plan | | |
| | | [X] Results | | |
| Last Edited | Condition category | [] Individual participant data | | |
| 27/11/2015 | Cancer | | | |

Plain English summary of protocol

Not provided at time of registration

Study website

http://www.icr.ac.uk/cmagres/maribs/maribs.html

Contact information

Type(s)

Scientific

Contact name

Dr Gek Kwan-Lim

Contact details

Section of Magnetic Resonance Downs Road Sutton United Kingdom SM2 5PT +44 208 661 3720 gek.kwan-lim@icr.ac.uk

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

Study information

Scientific Title

National multicentre study of magnetic resonance imaging (MRI) as a method of screening for breast cancer in women at genetic risk

Acronym

MARIBS

Study objectives

This is a national multicentre study of magnetic resonance imaging (MRI) as a method of screening for breast cancer in women at genetic risk. The study was developed in response to an invitation from the MRC in the UK to address Priority L of the NHS R and D Priorities in Cancer. The sensitivity and specificity of contrast enhanced MRI will be compared with two-view X-ray mammography in a comparative trial.

Approximately 500 women below the age of 50 at high genetic risk of breast cancer will be recruited per year for three years, with annual MRI and X-ray examination continuing for up to five years. A symptomatic cohort will be measured in the first year to establish common criteria for scoring and to ensure consistent practice. Women will be followed up to ascertain the true rate of breast cancer. The MRI examination will comprise an initial high sensitivity screening measurement, followed by a high specificity dynamic measurement in equivocal cases.

In addition to morphological assessment, the kinetics of contrast agent uptake will be measured, and quantitative pharmacokinetic parameters will be derived, to allow the most specific indicators of malignancy to be identified for subsequent routine use. Mammography, localisation, pathology and cytology will be performed in accordance with the NHS Breast Screening Programme quality assurance standards. Similar standards of quality assurance will be applied for MRI measurements and evaluation. The psychological impact and health economics of screening with both modalities in this high-risk group will be ascertained.

Ethics approval required

Old ethics approval format

Ethics approval(s)

North Thames Multi-centre Research Ethics Committee approved on the 11th November 1998 (ref: MREC/98/2/38)

Study design

Multicentre non-randomised observational screening genetic epidemiology study

Primary study design

Observational

Secondary study design

Cohort study

Study setting(s)

Hospital

Study type(s)

Diagnostic

Participant information sheet

Not available in web format, please use the contact details below to request a patient information sheet

Health condition(s) or problem(s) studied

Topic: National Cancer Research Network; Subtopic: Breast Cancer; Disease: Breast

Interventions

A symptomatic cohort will be measured in the first year to establish common criteria for scoring and to ensure consistent practice. Women will be followed up to ascertain the true rate of breast cancer. The MRI examination will comprise an initial high sensitivity screening measurement, followed by a high specificity dynamic measurement in equivocal cases. In addition to morphological assessment, the kinetics of contrast agent uptake will be measured, and quantitative pharmacokinetic parameters will be derived.

Intervention Type

Other

Phase

Phase III

Primary outcome measure

Annual MRI and x-ray breast examination

Secondary outcome measures

Not provided at time of registration

Overall study start date

01/04/1997

Completion date

31/03/2003

Eligibility

Key inclusion criteria

Group 1:

- 1. Women aged 35 49 years
- 2. Tested BRCA1 or BRCA2 carriers
- 3. Known mutation in first degree relative
- 4. Family history of breast and ovarian cancer (four or more relatives)

Group 2:

- 1. Women aged 25 49 years
- 2. Tested p53 carriers

- 3. Known mutation in a first degree relative
- 4. Family history consistent with Li Frameni syndrome

Participant type(s)

Patient

Age group

Adult

Sex

Not Specified

Target number of participants

Planned sample size: 900

Key exclusion criteria

- 1. Previous breast cancer (including ductal carcinoma in situ [DCIS])
- 2. Terminal illness, or life expectancy of less than 5 years
- 3. Pregnancy or breast-feeding (recruitment suspended until breast-feeding has finished)
- 4. Current chemotherapy (recruitment suspended until 6 months after treatment ceases; exclusion 2, above, still applies)

Date of first enrolment

01/04/1997

Date of final enrolment

31/03/2003

Locations

Countries of recruitment

England

United Kingdom

Study participating centre Section of Magnetic Resonance

Sutton United Kingdom SM2 5PT

Sponsor information

Organisation

Medical Research Council (MRC) (UK)

Sponsor details

222 Euston Road London United Kingdom NW1 2DA

Sponsor type

Research council

Website

http://www.mrc.ac.uk/index.htm

ROR

https://ror.org/03x94j517

Funder(s)

Funder type

Research council

Funder Name

Medical Research Council (MRC) (UK) (ref: G9600413)

Alternative Name(s)

Medical Research Council (United Kingdom), UK Medical Research Council, MRC

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

United Kingdom

Funder Name

NIHR Health Technology Assessment Programme - HTA (UK)

Results and Publications

Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|-----------------|---------|--------------|------------|----------------|-----------------|
| Results article | results | 01/02/2015 | | Yes | No |